## **Knowledge Organiser**

# Earth and Space

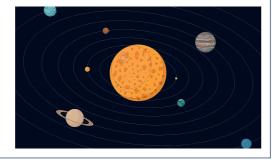


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Glossary					
1	Universe	All existing matter and space	11	Rotate	To spin in a circle motion around a fixed point
2	Galaxy	A system of millions or billions of stars	12	Axis	The imaginary line about which a planet (or other body) rotates
3	Star	A burning ball of gas found in space	13	Time Zone	A geographic region where the same standard time is used in all places
4	Milky Way	The galaxy we live in	14	Hemisphere	Half of a sphere — one half of the Earth
5	Solar System	The collection of eight planets, their moons and everything which orbits the Sun	15	Equator	An imaginary line around the centre of the Earth
6	Sun	The star at the centre of our Solar system	16	Season	A period of the year characterised by a particular climate or conditions
7	Planet	A body which orbits the Sun	17	Lunar	Something which involves the Moon
8	Moon	A body which orbits a planet — a natural satellite	18	Atmosphere	The gases surrounding the earth or another planet
9	Spherical	Shaped like a sphere	19	Geocentric	The belief that the Earth is at the centre of the Solar System
10	Orbit	To move around something repeatedly in a circular or almost circular motion	20	Heliocentric	The belief that the Sun is at the centre of the Solar System

### What is the Solar System?

The Solar System is the Sun and the planets which orbit around the Sun. It also includes their moons, asteroids and anything else which orbits the Sun. The Solar System has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.







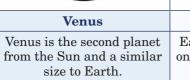
Mercury is the smallest

planet and the nearest

planet to the Sun.







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Earth Earth is the planet we live on and it is the third planet from the Sun.



Mars Mars is the fourth planet from the Sun. It is approximately half the size of Earth.



## What are the phases of the Moon?

The Moon takes 28 days to orbit the Earth — a lunar month. As it does this, it looks as though it changes shape. However, it does not actually change shape and instead it is our view of the Moon that is changing. We call the different views of the Moon the 'phases of the Moon' and each phase has a name.

New moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, third quarter, waning crescent and then back to new moon.



#### What is a moon?

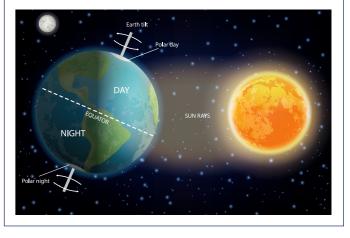
A moon is a body which orbits a planet. It is also known as a natural satellite. Some planets have multiple moons but Earth only has one. It is a rocky, dusty ball and we call it the Moon.



#### What do we know about the Earth and the Sun?

The Earth orbits the Sun and whilst it does this, it spins on an axis. The Earth takes 365 days to orbit the Sun and this is why one year is 365 days. The rotation of the Earth is why we have day and night. When part of the Earth is facing the Sun the places there will experience daytime. The places found on the side of the Earth not facing the Sun will experience night-time.

The tilt of the axis is the reason why we experience different seasons.





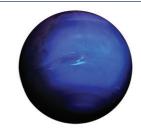
Jupiter Jupiter is the largest planet in the Solar System and the fifth planet from the Sun.



Saturn Saturn is the sixth planet from the Sun. It has rings and is the second largest planet.



**Uranus** Uranus is the third largest planet. It is the seventh planet from the Sun.



Neptune Neptune is the eight planet and the furthest from the Sun. It is slightly smaller than Uranus.

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